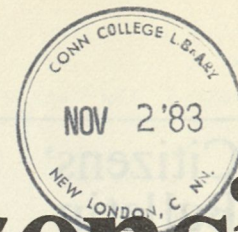
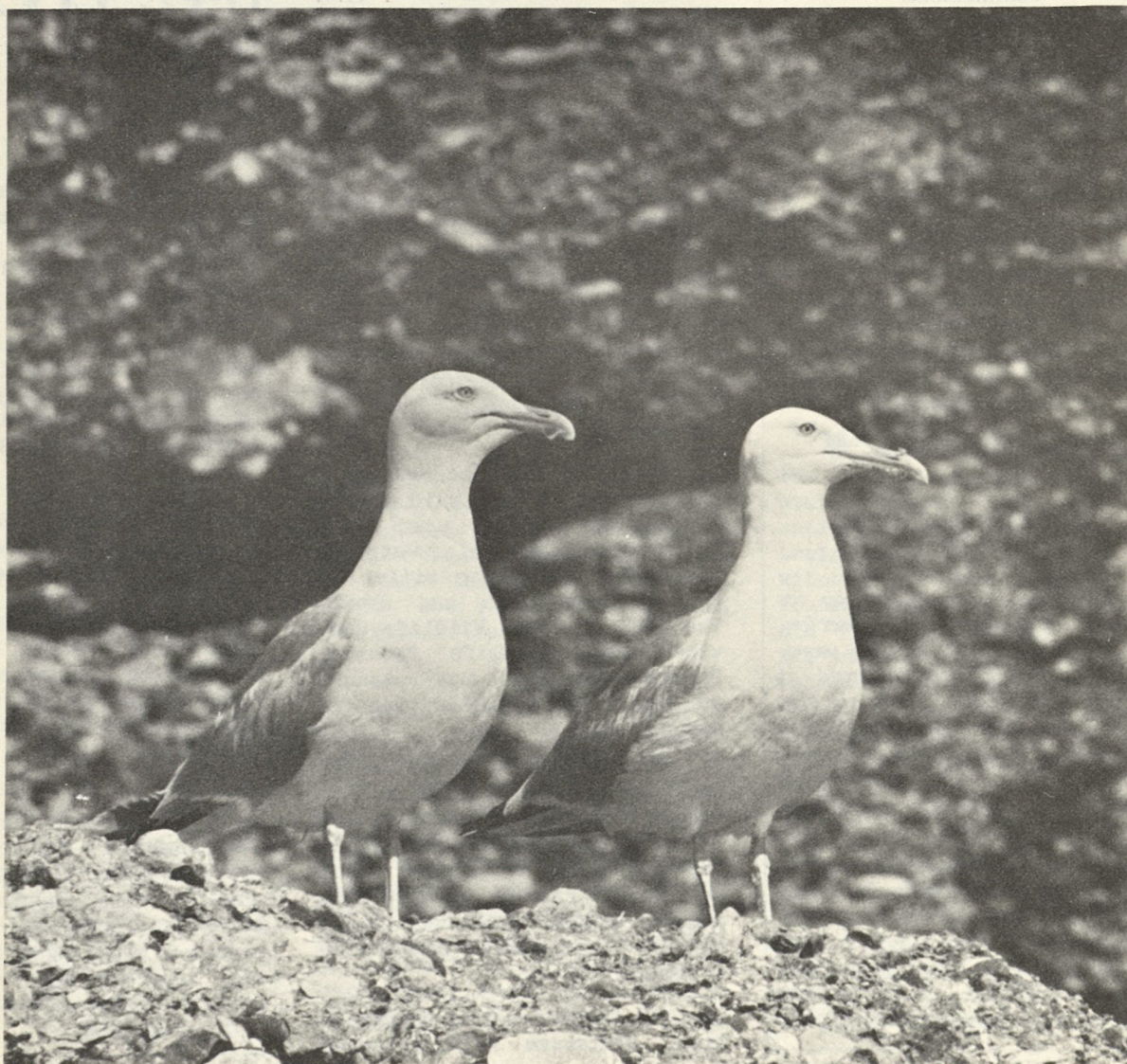


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The Connecticut Department of Environmental Protection



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Leonard Lee Rue III

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Wild birds' favorite foods listed in new booklet

Sixty million Americans feed wild birds, and almost everything they need to know about what seeds birds like is in the National Wildlife Federation's new booklet, "Wild Bird Feeding Preferences."

When birds are offered a commercial seed mix, some types of seeds disappear faster than others—because different birds prefer different kinds of foods.

"Wild Bird Feeding Preferences," by Dr. Aelred Geis and Donald Hyde Jr., tells you that the purple finch's favorite seed is the oil sunflower. You will also discover that the titmouse likes peanut kernels, and the house sparrow prefers white proso millet. In all, the preferred foods of over two dozen birds—including the cardinal, chickadee, and scrub jay—are listed.

It rates seeds according to their appeal to 13 wild birds, listing 16 commonly used seeds that range from black-striped sunflower and golden millet to fine cracked corn and wheat. The U.S. Fish and Wildlife Service Urban Wildlife Research Program conducted the research on which this publication is based.

The booklet's cover drawing, by noted wildlife illustrator Bob Hines, shows these 13 birds in their normal feeding positions, with the American goldfinch on an elevated feeder eating sunflower seeds and the brown-headed cowbird on a feeding table.

Dr. Geis's earlier publication, "Relative Attractiveness

of Different Foods at Wild Bird Feeders," was published three years ago by the U.S. Fish and Wildlife Service and was the all-time most requested publication in its series.

"Wild Bird Feeding Preferences" is available in single copies or in bulk, at the following prices: single copy, \$1; 2-25 copies, 60 cents a copy; 26-50 copies, 45 cents a copy; 51-999 copies, 35 cents a copy; and more than 1,000 copies, 25 cents a copy. Write to: Wild Bird Feeding Preferences, Dept. 157, National Wildlife Federation, 1412 16th St. NW, Washington, D.C. 20036

1-800-842-HELP Report a wildlife violation!

Concerned citizens can help the Department of Environmental Protection's law enforcement officers deal with wildlife-related violations. A 24-hour toll-free telephone service is now available. Calls can be made from anywhere in Connecticut to 1-800-842-4357 (HELP). Only reports of wildlife violations will be accepted.

Activities such as deer or lobster poaching, taking undersized fish, or exceeding legal bag limits should be reported. Since this system has been developed specifically for law enforcement efforts, no general information requests or nuisance animal or injured animal reports can be submitted on this line.

"The Connecticut Department of Environmental Protection is an equal opportunity agency that provides services, facilities and employment opportunities without regard to race, color, religion, age, sex, physical handicap, national origin, ancestry, marital status or political beliefs."

Valley Railroad State Park ... its steam train, riverboats are a mobile museum

By Susan Subak, Environmental Intern

"We will destroy the museums, libraries, academies of every kind.... We will sing of deep chested locomotives whose wheels paw the tracks like the hooves of enormous steel horses bridled by tubing," proclaimed Filippo Marinetti in his "Futurist Manifesto" of 1909. Little would the history hating, "forward" looking Futurists know that within a few years not only would the locomotive be replaced as the transportation of the present and future but that the steam locomotive would be relegated to the position of museum relic.

In 1983, from May until October, a steam locomotive, a mobile outdoor museum loaded with visitors, pulls out of Essex, Connecticut. It makes its way along the Connecticut River from Essex to Chester and stops at Deep River. The steam locomotive, once the power behind the Industrial Revolution, now powers a train full of tourists on an afternoon of sightseeing along the Connecticut River. Its energy, derived

from the pressure of the water as it is converted to steam at 1,600 times its former volume, moves the antique train in its slow course up the river valley. Trains are now fast and diesel-fueled, but the managers of the Valley Railroad keep their trains slow so as not to blur the scenery.

At Essex, the train leaves the turn-of-the-century freight station and its new but antique-looking addition. The train sets out past the only witch hazel distillery in the country and passes a number of old frame houses as it makes its way toward the forests and wetlands that line much of the route. The trainman narrates with pertinent facts about the train and sights. The Valley Railroad operates a variety of cars, most of them built in the 1910s and 1920s. For an extra fare, you can ride in the parlor car with its plush velvet chairs and its period music. What you gain in comfort, however, you may lose in education because it is difficult to hear the trainman over the intercom

while the music is playing. The car is quite attractive, however with its original furniture and crafted overhead racks.

The train stops at Deep River landing, where riders may board one of the Valley Railroad's riverboats. In its one hour cruise, the boat passes Selden Island, Gillette Castle, the village of East Haddam, and the Goodspeed Opera House. The various sites sit along terrain that varies from rolling hills to rocky bluffs and steep cliffs. The boat shares the river with a few swans, a group of cormorants, and several boats. (The riverboat also runs on Saturday nights for two-hour cruises with a live band, often Dixieland, and a cash bar.) On the day trips, the scenery is the main attraction, but group tours can buy lunches at \$5.50, and individuals can bring lunches and buy drinks and hot dogs at the boat's refreshment counter.

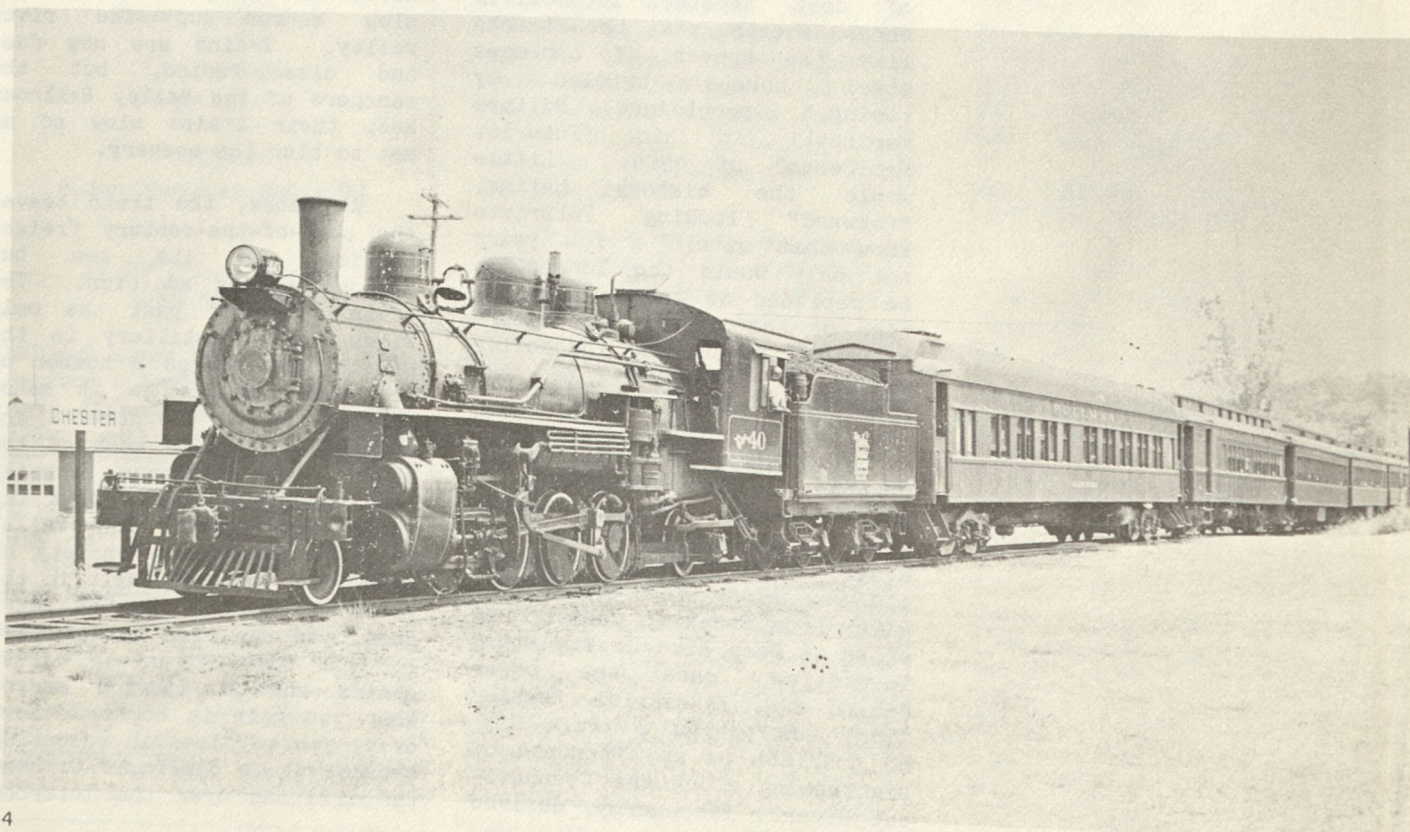
Pleasant though the Valley Railroad excursion may be, it did not come about without considerable volunteer effort and steaming controversy. In the

late 1960s, the New Haven line filed a petition to abandon the route, and by 1968 several groups were vying for use of the railroad corridor. A group of local citizens, the Valley Line Landowners, favored selling the rights of way to abutting landowners in order to prevent such nuisances in their backyards as litter, noise, and soot. Less immediate neighbors joined one of two camps, those favoring a pathway state park for hiking and those preferring a scenic railroad. The support for a hiking trail included plans to connect the area to the proposed, but now abandoned, plan for a Connecticut River National Park. The Middletown Press, however, did not share the Hartford Times's enthusiasm for a hiking area and their support for a scenic excursion railroad eventually gained a great deal of support.

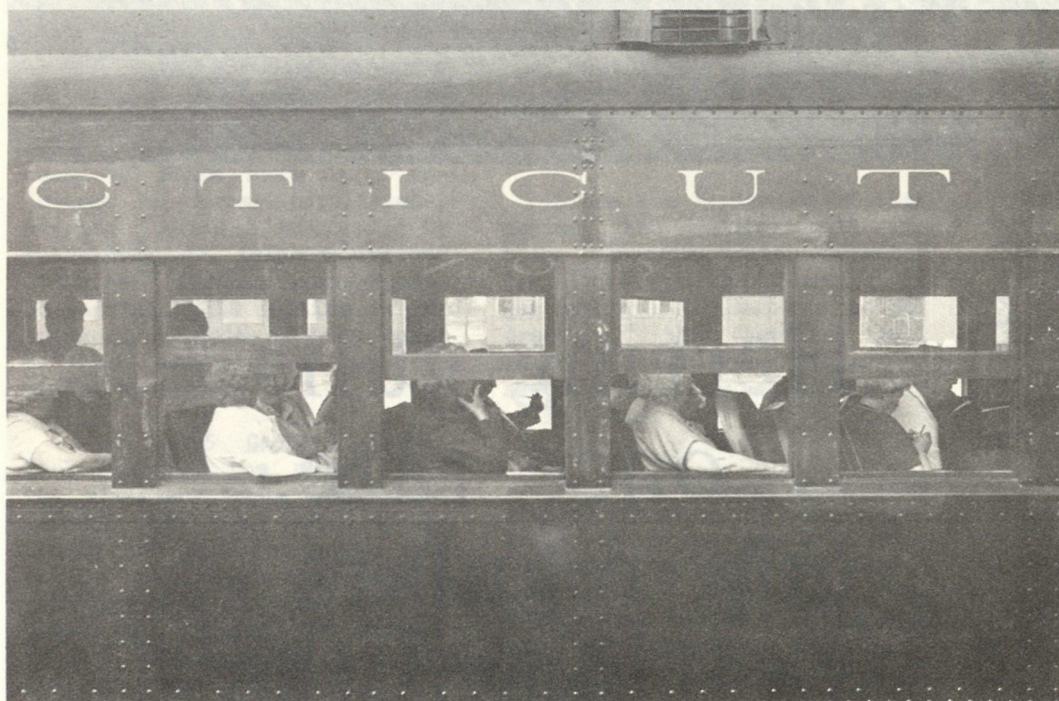
The State bought the 308 acres and the rights of way from Penn Central in 1968 and has been leasing the operation to the Valley Railroad Company ever since. The railroad began operating again in 1971, 100 years after its beginnings as a passenger line, the "Valley

Division," that ran six trains a day at its height but eventually gave way to freight-service-only after 1930. The Office of Parks and Recreation leaves the administration of the trains in the Valley Railroad's hands, helping out only in the occasional crisis such as the damage caused by last year's serious flooding. In addition, there is on-going liaison to determine areas where the State and the Valley Railroad can interact for the benefit of both. For example, one proposal is to someday combine the boat cruise with a tour of Gillette Castle State Park, where the passengers may visit the castle or picnic on the grounds.

The Valley Railroad would not have been resurrected without the contributions of a specialized group of volunteers who insured that the Valley Railroad would have authentic machinery on its tracks. Equally important, members of the Empire State Railway Museum and the Connecticut Valley Railroad Association paid dues towards the railroad project and volunteered their time working on their human sized



Valley Railroad

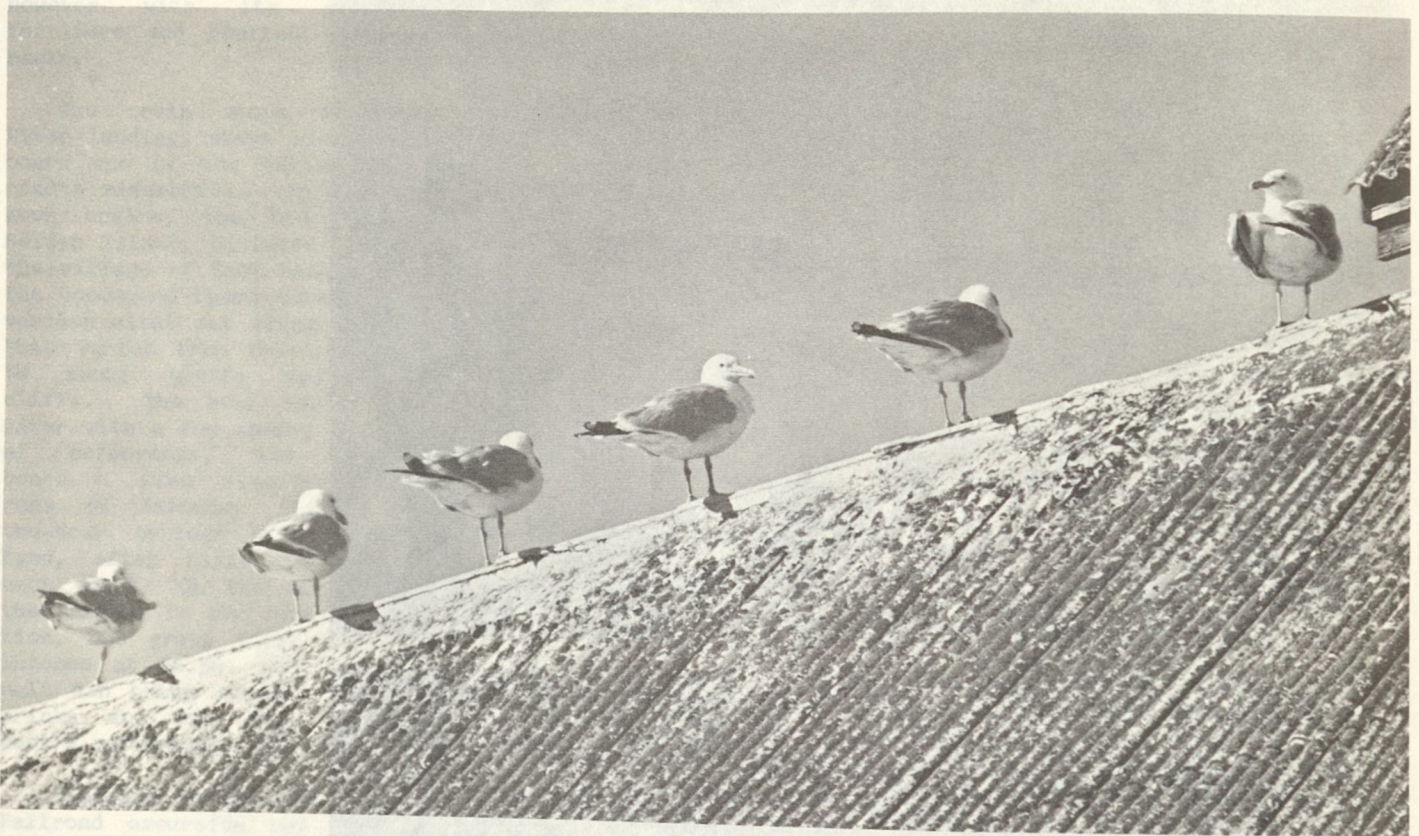


toy railway. Their hobby sometimes entailed crawling around inside the boiler of the steel locomotive on hot days, which Joe Pagano, secretary of the Connecticut Valley Railroad Association termed as "about the filthiest, hottest work imaginable," but "fun." Several of these railroad hobbyists own their own railway cars. Some of them donated equipment and manufactured locomotive parts on heavy machinery, adhering to the

original specifications and styles. These experts continue to work with the Valley Railroad, restoring trains in the nearby engine house.

The Valley Railroad and boat tour, which hosts over 100,000 visitors per year, runs from April 30 through October and for several weekends before Christmas, when Mr. Claus spends the day on the train and visiting children can expect a small gift. The train also

operates between Christmas and New Year's on weekdays. The train and one hour cruise costs \$6.95 for adults and \$4 for children from three to 11. The train only is \$3.95 for adults and \$2 for children. Discounts are available for seniors and groups of 25 or more who make advance reservations at (203)767-0103. Trains and boats are also available for private charter at the same number. Call or write for additional information. ■



If there is one bird that anyone visiting the shore recognizes, it's the herring gull, or sea gull as it is commonly known. With its large grey and white body and unforgettably graceful flight patterns, a mature herring gull is readily identified. Many people are surprised to learn that 100 years ago the sight of a herring gull in Connecticut would have been rare indeed. It is only in this century that the gull has become such a common inhabitant of our area.

Currently herring gulls nest along the East Coast from Newfoundland south to the Outer Banks of North Carolina. In 1966 it was estimated that 115,000 pairs of gulls were nesting on 225 islands along the New England coast. Census results indicate that the New England breeding population is

Herring gulls ... once rare, now regulars well down the Eastern shore

By Susan A. Navrotsky

doubling every 12-15 years, so it is easy to see why one's image of pounding surf often includes a gull floating on the wind just above the water.

This situation is in sharp contrast to that of the last century. At that time herring gulls rarely nested farther south than Penobscot Bay, Maine. European settlers relied on gull eggs as an important food source. Eggers rowed to the breeding islands and smashed eggs. They returned to the islands a few days later to collect the freshly laid replacement eggs. Sometimes chicks were taken, fattened up, and eaten as they had been at English country banquets.

Of course the herring gull was not the only bird providing food for the settlers. It was during this 19th century "Age of Extermination" that the passenger pigeon, heath hen, and great auk were driven to extinction. A number of sea bird species which nested off the coast of Maine have never recovered to former populations. Herring gulls survived by retreating to islands further offshore. Audubon even reported herring gulls nesting in fir trees on islands off the coast of Maine where nests had been raided by eggers.

In 1875 Godey's Lady's Book featured the plumed look for millinery wear. Women of fashion in both the United States and Western Europe took to the streets in hats adorned with feathers of more than 40 different species of birds. Plumage was supplied by millinery gunners. Gull and tern colonies were heavily raided as fashion favored white. Dealers paid 40 cents each for mature herring gulls and 20 cents each for immature birds.

Individuals outraged over the decimation of bird populations began to take action. Lighthouse keepers protected sea bird colonies; the National Audubon Society hired wardens during the breeding season. The Lacey Act, passed in 1900, prohibited interstate transport of birds killed in violation of

state laws. In 1901 the Maine Legislature passed a law granting protection to gulls and most other wild birds.

A turning point had been reached. Census data from 1900 show the New England herring gull population to have numbered between 4,000 and 8,000 pairs nesting on 14 islands. Contrast that with the 1966 data that found herring gulls nesting on 225 New England islands!

The herring gull has proven itself to be a highly opportunistic species. In a world altered by humans it has maintained a strong advantage over many creatures because it functions as both predator and scavenger. As a scavenger the herring gull provides a service by keeping harbors and beaches free of decaying sea creatures and human refuse. The gull's predatory feeding habits run the gamut from digging crabs in the sand to consuming dragonfly nymphs.

Since the beginning of this century the herring gull has been expanding its breeding range through the founding of new colonies. Being a social creature, the herring gull tends to nest, feed, rest, and sleep in the company of others of its kind.

In the late 1930s complaints about large numbers of gulls prompted the U.S. Fish and Wildlife Service to implement a gull control program. A.O. Gross of Bowdoin College was contacted to develop a method of inhibiting gull reproduction. From 1940 to 1952 gull eggs were sprayed with a mixture of high-grade oil and formaldehyde. Oil suffocated the embryos, while formaldehyde prevented the eggs from rotting and bursting. Although the breeding population was reduced after four or five years, it began to rise again after ten years. Possibly eggs were laid to replace those that had been destroyed.

As the breeding population increased, gull colonies ex-

panded southward. In the 1920s herring gulls were reported nesting with laughing gulls (a smaller gull) on Muskeget Island in Massachusetts. In the spring herring gulls established their territories prior to the arrival of the laughing gulls. In disputes over nesting sites the territory holder has an advantage over a newcomer. Laughing gulls were eventually forced from Muskeget Island.

The first herring gull nest in Maryland was found in 1955. By the early 1960s the gulls were nesting in North Carolina. Herring gulls generally form colonies in unoccupied areas, but when pressured will venture into laughing gull or tern colonies. In the northeastern U.S. colonies are established on sandy or barrier beach islands. Farther south, where few such islands exist, gulls have nested in Spartina marshes.

The increase in herring gull numbers is largely attributed to the presence of garbage dumps which provide a dependable food supply on a year round basis. The decline in both laughing gull and tern populations has been associated with their displacement from traditional breeding grounds. In the Northeast, alcids such as puffins, razorbills, and common murrens have suffered from gull interference. Herring gulls steal food and prey upon alcid chicks. Alcid attempts to recolonize are thwarted by the presence of gulls in their former colonies - the colonies from which the alcids were displaced during the eggging era.

The herring gull has survived and prospered under conditions which have led to the decline or extinction of many other species. This surprisingly resourceful bird has endured through a combination of strength, opportunism, and aggression. So long as humans supply an abundance of food and garbage, the herring gull will continue to be a familiar sight at our shoreline and landfill areas. ■

Beautiful plants crop up in some surprising places

By G. Winston Carter

Illustrations: Pamela Carter

It is surprising the number of beautiful plants that can be found in unexpected places that are a part of our everyday life. I have found beauty in vegetation around a supermarket, along railroad tracks, in small islands of green in cities, on the edges of lawns near the sidewalk, in the strip of vegetation which sometimes lies between a sidewalk and the road, and in vacant lots. We tend to walk past flowers growing in such places day after day without realizing that they are there, except in a general way. This is particularly true for some of the smaller flowers which need at least a hand lens to be appreciated.

I was once riding by a busy shopping plaza when I noticed a number of blue flowers growing in a rather barren area near the highway. When I stopped to look at them I was thrilled to discover a very beautiful but somewhat bizarre type of flowering plant. This was the viper's bugloss (Echium vulgare), which has bluish-purple flowers with long projecting red stamens and grows about one to one and one-half feet tall. Early herb doctors made a preparation by boiling parts of the plant in water and used it to cure or prevent snake bite. They thought that the purple mottling on the stem and branches was a "signature" indicating to them that it should be used against the bite



Viper's - bugloss

of poisonous snakes, particularly when they discovered that the seeds resemble the head of a snake. Later, I was to discover a large concentration of this exotic plant near another shopping area. Unfortunately, it has since disappeared as a restaurant now occupies this site.

One day when I went to get a haircut, I noticed a horse nettle (Solanum carolinense) growing beside the barber shop in a small three-by-four foot space that was obviously furnishing a suitable habitat for this plant. Here, it is a thing of beauty; elsewhere it may be a nuisance. The blossom of this plant is usually white-green but may be blue or lavender. The plant is a member of the same family as the potato, tomato, and eggplant, but it contains a poisonous chemical, solanine. However, herb doctors used to prepare its orange berries, which contain only small amounts of the poison, by drying them. The preparation was then used as a sedative and anti-spasmodic. The berry was also once popular in the treatment of epilepsy.

Nearly everyone is familiar with the common dandelion (Taraxacum officinale), but probably a great many people are not aware of the fall dandelion (Leontodon autumnalis) that blooms from June to November. The flower stalk of this species does not have the milky juice of the common dandelion, and the underside of the outer ray flowers is usually reddish. The flower head itself is not as full as that of the common dandelion. Usually fall dandelion appears as a few isolated specimens and grows on lawns and in that space of green between the sidewalk and the road.



Wild sensitive plant

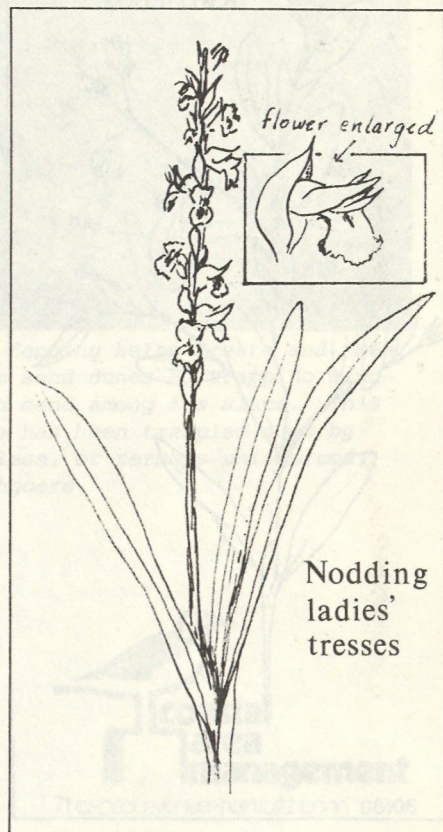
Another plant that commonly grows along this strip is shepherd's purse (Capsella bursa-pastoris). This also grows around buildings and on lawns. The species name "bursa-pastoris" is Latin for "shepherd's purse" and was given because of the resemblance of the flat seeds to a purse. These seeds can be used to add flavor to soups and salads. The young leaves are also edible. When they are boiled they taste like cabbage.

The area around railroad tracks offers a wealth of opportunity for the plant lover to find a wide variety of species. Many alien plants become established here and along roadsides because they do not find competition from other plants. Aliens are plants not native to an area but which become established, the seed being brought here in various interesting ways. One of my most exciting discoveries while botanizing along railroad

tracks was the four-o'clock (Mirabilis nyctaginea). This is not a native species in Connecticut and probably has an interesting story to tell. The specimens I found were red, but they may be found in gardens as pink, purple, and yellow varieties as well as red. The generic name in Latin means "remarkable or wonderful." The species name is Greek for "night-blooming." Thus, a wonderful plant that opens late in the afternoon -at about four o'clock.

The richest of the waste places to botanize is probably the vacant lot. Often it will yield a remarkable array of intriguing specimens. Here I have made such discoveries as ladies'-tresses (an orchid), wild sensitive plant, rattle-box, whorled milkwort and sand jointweed.

In the vacant lot that I visit frequently I find nodding ladies' tresses (Spiranthes cernua) growing near the edge nearest the road. This is a small orchid with flowers that arch downward, hence the specific name "nodding." The

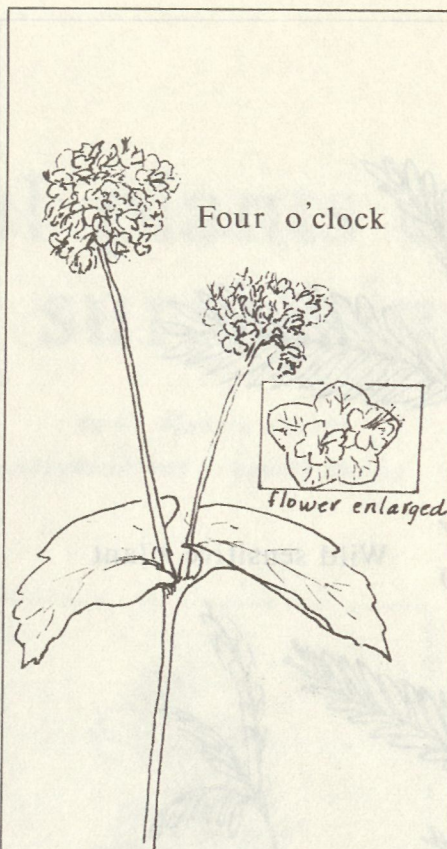
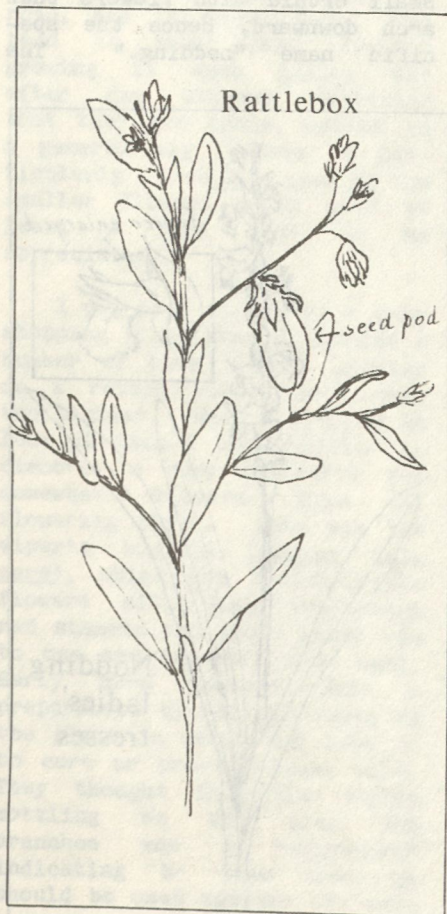


Nodding ladies' tresses

Greek generic name means "spiral-flowered," which refers to the twisted flower stalk of this plant. Whoever gave this flower its common name apparently thought that the small white blossoms looked like "ladies tresses."

Many specimens of wild sensitive plant (*Cassia nictitans*) grow nearby. This is a tiny short-stalked flower that is a legume related to the common garden pea. It is a good example of a plant attempting to coordinate itself. The leaves have the ability to fold when subjected to mechanical stimulation, which is the reason for the term "sensitive."

Rattlebox (*Crotalaria sagittalis*) is well named. This refers to the rattling sound made by the ripe seeds of this legume when its hard pod is disturbed in some way. Its generic name "Crotalaria" is a Greek word which means "rattle," the same as its common name. The species name



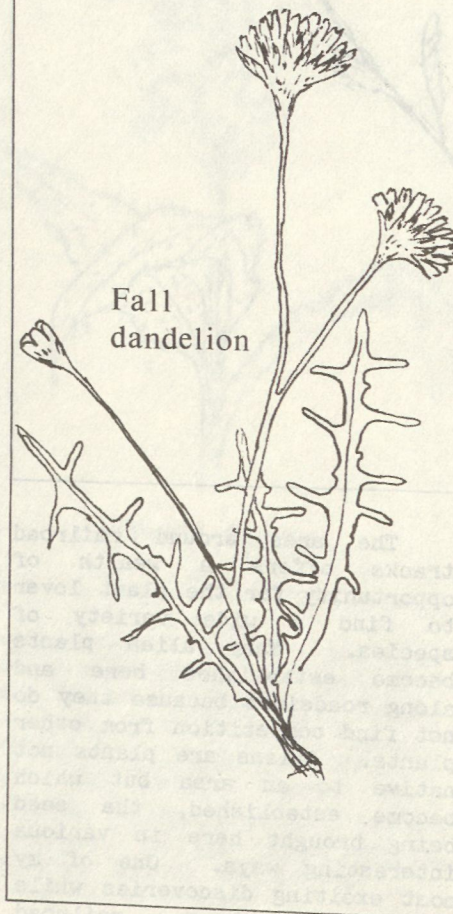
"sagittalis" is a Latin word which refers to the arrow-shaped stipules, small, ear-like appendages which are found at the base of the leaves. The seeds of the rattlebox have been roasted and used as an acceptable substitute for coffee.

Two small but exquisite flowers are the whorled milkwort (*Polygala verticillata*) and sand jointweed (*Polygonella articulata*). The whorled milkwort has short linear leaves which are usually in whorls of three to six, but here is one variety where most of the leaves are alternate instead of appearing at the same level as in a whorl. This plant usually grows to be from six to 12 inches in height. The sand jointweed, as its name implies, grows in sandy soil. It has very small pink or white blossoms. The stem is wiry and jointed. The leaves are small and threadlike.

These are but a few of the plants to be found in a vacant lot. Others include the usual array of butter and eggs, fleabanes, several kinds of clovers, asters, and goldenrods.

All waste places seem to invite exploration. Most of the plants found there will be aliens, and they offer a rich opportunity for all those who aspire to know more of the world of plants.

© Gale W. Carter 1983



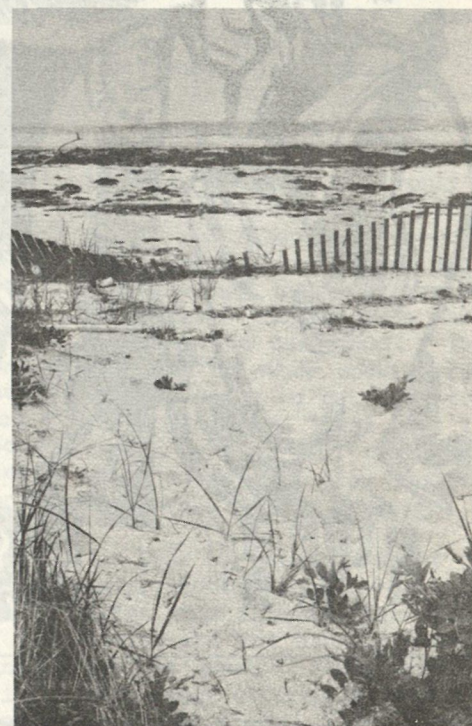
Protecting our dunes: recognize the signs

By Diane Giampa, Public Participation Coordinator



Ron Rozsa photos

Have you ever seen a sign like this one at your favorite beach? In stormy weather, sand dunes are our most important source of protection from high tides and damaging waves.



Snow fencing helps create and preserve sand dunes by trapping wind-blown sand among its slats. This fence has been trampled down by careless, or perhaps uninformed, beachgoers.

Each of these beachgrass plants contains several "culms" or stems.

Mature plants can trap up to four feet of sand in a year's time. With help from this vegetation, dunes grow larger and remain stable.



71 capitol avenue hartford, conn. 06106



Environmental worries: a bigger problem for the poor than the rich

The conservation of nature has sometimes been called a concern of the rich. Yet it is the developing world's rural poor -- those who must extract life's essentials directly from the soils, forests, wildlife, and waters about them -- who suffer most from natural resource depletion. The precarious ability of huge numbers of people in Africa, Asia, and Latin America to obtain food, cooking fuel, pure water, traditional medicines, building materials, and other necessities in large measure depends on the quality of their environment.

Hundreds of millions of the world's poorest people are locked into a tragic relationship with their surroundings. In their struggle to meet current survival needs, they are forced to damage the very resources on which the future improvement of their lives depends. Because of the combined effects of economic inequality, rapid population growth, and lack of technological advancement, people today are depleting the earth's biological "capital."

They are clearing forests that are essential for both ecological and economic purposes, plowing soils that should be left idle, and generally subjecting the land to destructive overuse. If present trends continue, the rural poor will over time need to work even harder simply to meet their essential needs. And their societies will have to invest more to gain less from the land.

By Erik Eckholm

While the mismanagement of soils and forests is by no means confined to poor countries, the human consequences are most severe where poverty and crowding allow so little margin for error. The American Dust Bowl of the 1930s was an ecological catastrophe similar to that faced by some developing countries today. In The Grapes of Wrath, John Steinbeck chronicled the desperate migration of displaced farmers to California. But families in present-day Niger or India have no California to head for when the soils that sustain them blow away.

Although the worst effects are local, widespread resource degradation is a matter of global concern. Cropland degradation anywhere raises food prices everywhere. Rising wood prices are a driving force of global inflation. The rapid extinction of tropical plant and animal species has severe costs for medicine, industry, and agriculture, because such species are an important source of new drugs, industrial products, and genetic material important for breeding improved plant varieties. And finally, since environmental degradation impedes economic growth and political stability, it threatens the long-term security and prosperity of all nations.

Uncontrolled deforestation -- caused by the spread of agriculture, unregulated timber harvesting, and fuelwood collection -- is a major problem. The vast tropical rainforests of Central and West Africa, the Amazon Basin, Central America, and Southeast Asia, for example, have already shrunk to little more than half their original domain and are disappearing at a rate of 35 acres a minute.

This has not only drastic environmental but also economic costs. Wood is an essential raw material for construction. Yet in forest-poor Pakistan, a simple board costs twice as much as it does in the United States, where incomes are 46 times as high. In India, where

housing needs are acute, building programs have been derailed by the lack of wood poles, which are necessary even in most earthen construction.

The decline in forest resources inflicts other direct hardships on low-income families. Nearly half of the world's people rely on wood to cook their food each day. In the colder regions of the Third World, firewood is usually also the sole source of warmth. In some places, the burning of wood far outpaces the growth of new trees. As a result, hundreds of millions of people are meeting their cooking needs only with great difficulty.

In rural areas, firewood scarcity often places special burdens on women and children, who generally bear the responsibility for collecting fuel. A chore that once took minutes can now take many hours as lengthy hikes to gather headloads of wood become necessary.

In urban areas, where most people must buy their wood or charcoal, the imbalance of supply and demand results in soaring prices. Wood prices have commonly quadrupled or more over the last decade. Poor urban families in countries such as Upper Volta, Niger, Guatemala, and Haiti spend as much as 20 to 40 percent of their meager incomes on cooking fuel.

The great drought and famine of the early 1970s in the Sahel focused attention on the ecological distress facing farmers and herders in the world's drier regions. More than 60 million people are struggling to make a living from lands that are turning to waste because of the various forms of human-caused desertification, and it is estimated that more than \$26 billion is lost annually in agricultural production.

Carelessly managed development activities, too, can cause ecological backlashes that hurt people. For example, the construction of dams and irrigation systems in the tropics has

frequently resulted in the spread of schistosomiasis -- a debilitating disease caused by waterborne parasites that affects more than 200 million people.

Industrial pollution and toxic-chemical hazards are also emerging as serious threats in many poor countries. While modern pollutants and chemicals are not as common as in the industrial world, most developing country governments are not able to regulate their safe disposal and use. River pollution from factories has undermined the livelihoods of entire villages in Malaysia and Indonesia that are dependent on fisheries. Pesticide poisonings are especially commonplace, taking thousands of lives annually worldwide.

Important as they are, sound environmental and land-use policies can only be effective if the underlying causes of resource destruction are checked. As long as people are poor and hungry, they will do whatever they must to scrape together the next meal. Those who have no other cooking fuels will continue to cut live trees for firewood. Those who lack income or land will continue to clear hillsides, plow pastures, and invade natural reserves.

What is needed are not just environmental policies but policies that increase the productivity and the earning capacity of the poor. Only when the poor have alternative means of survival can the global environment be truly protected. Hence the struggle to protect the environment is linked to the struggle for economic justice -- both within and among countries.

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Erik Eckholm is Managing Editor of Natural History magazine and author of Losing Ground (Norton, 1976) and Down to Earth (Norton, 1982). This article is adapted from CARE Briefs on Development Issues, No. 1, published by CARE in cooperation with the Overseas Development Council. ■

Wildlife...

What permits, licenses, or tags do you need?

WHAT KIND OF PERMIT, LICENSE OR TAG DO I NEED

New legislation has made provisions for many different licenses, fees, and tags. Below is a listing of the many wildlife-related permits, licenses, and/or tags issued by the DEP Wildlife Bureau, DEP Licensing & Revenue Unit, and by Connecticut town clerks. Information pertaining to the different sporting licenses, permits, and tags may be obtained by reading the current 1983 "Abstract of Hunting, Trapping and Sport Fishing Laws and Regulations." This publication is available at all town clerks' offices and at various DEP offices.

Information or copies of laws and regulations pertaining to other wildlife-related permits may be obtained by contacting DEP's Wildlife Bureau at 566-4683

Permits Issued by Wildlife Bureau

Sections 26-7. Nuisance Wildlife Control Program Permits (Permit - no charge)
Section 26-7. Special Beaver/Muskrat Trapping Control Permits (Permit - no charge)
Section 26-40. Game Breeder's Licenses (Permit - \$10.00)
Section 26-47. Raccoon Damage Control Permits (Permit - no charge)
Section 26-48. Private shooting Preserve Permits (Permit - \$25.00; tags, .10 each)
Section 26-49. Regulated Dog

Training Area Permits (Permit - \$5.00; tags .05 each)

Section 26-51. Non-Shooting Field Trial Permits. (Permit - no charge)

Section 26-52. Shooting Field Trial Permits. In addition to permit fee, tags must be purchased for each bird shot at .05 per tag. Informal Field Dog Training Trail (Permit - \$3); Recognized Field Dog Trial (Permit - \$7.50); Bird Dog Trial (Permit - \$7.50)

Section 26-54. Wildlife Custodian Permits (Permit - no charge)

Section 26-55. Wildlife Importation Permits (Permit - no charge)

Section 26-55. Wildlife Possession Permits (Permit - no charge)

Section 26-59. Wildlife Mounting Permits (Permit - no charge)

Section 26-60. Scientific Wildlife Collector's Permits (Permit - no charge)

Section 26-72. State Land Trapping Permits (Permit - no charge. Permits awarded on the basis of competitive bidding every four years.)

Section 26-82. Commercial Deer Damage Control Permits (Permit - no charge)

Section 26-82. Special Deer Jacklighting Permits (Permit - no charge)

Section 26-95. Trapping Feral Pigeon Permits (Permit - no charge)

Muskrat; Leonard Lee Rue III



Other. Regulated Hunting Area Permit -- daily and seasonal permits issued for hunting on designated "Permit-Required Hunting Areas" - issued by agents appointed by the Department.

Wildlife-Related Permits
issued by
DEP Licensing & Revenue Unit

Section 26-28. Non-Resident Trapping License (\$200.00)
Section 26-39. Hunting License for Owner of Pack Dogs (\$25.00)

Section 26-42. Raw Fur Dealer's License - Non-Resident (\$150.00); Resident (\$30.00); Authorized Agent of Licensed Dealer (\$20.00)

Section 26-58. Taxidermy License (\$50.00)

Other. Resident Deer Hunting Permits (State and Private Land): Archery \$5.00; Muzzleloader, \$10.00; Shotgun, \$10.00; Rifle, \$10.00*; Landowners (no charge);



Raccoon: Leonard Lee Rue III

Wildlife-Related Permits
Issued by Town Clerks
(or License Agents for
Sporting Licenses)

Section 26-28. Small Game Licenses -- Resident: Hunting (Firearms), \$9.00; Hunting (Archery), \$9.00; Firearms Hunting and Fishing, \$12.00; Trapping, \$16.00; Junior Hunting (Firearms), \$3.00; Junior Hunting (Archery), \$3.00; Junior Trapping \$3.00; 65 Years of Age or Over: Firearms Hunting and/or Fishing (Free); Small Game Licenses -- Non-Resident: Hunting (Firearms), \$27.00; Hunting (Archery), \$16.00; Firearms Hunting and Fishing, \$35.00.

Section 26-44. Licensing of Ferrets: Ferret License (\$1.00); Ferret Dealer's License (\$5.00)

Wildlife-Related Permits
Issued by the Chief Executive
Authority of the Town

Section 26-40a. Permit for Possession of Potentially Dangerous Wild Animals (no charge)



Beaver: Len Rue, Jr.

Non-Resident Deer Hunting Permits: Archery, \$5.00; Muzzleloader, \$30.00; Shotgun, \$30.00; Rifle, \$30.00*. Turkey Hunting Permits: Spring Season, \$10.00; Fall

Archery Season, \$5.00; Landowner (no charge). Pheasant Tags Series, \$5.00.

* Private land only with the permission of the landowner.

PCBs...

Housatonic levels vary by location and fish species

By Leslie Bieber, Citizen
Participation Coordinator

In 1978 the Connecticut Academy of Science and Engineering (CASE) did a report on PCBs in the Housatonic in response to widespread public concern. According to the CASE report, PCBs had been widely used in a variety of commercial and industrial applications for more than four decades, beginning in 1929. In the 1970s, general recognition of the environmental persistence and potential toxicity of PCBs prompted federal restrictions on their use and disposal. The 1976 Toxic Substance Control Act (PL 94-469) prohibited the continued manufacture of PCBs and prohibited their use in all but totally enclosed systems.

The largest known contributor of PCBs to the Housatonic River is the General Electric Company in Pittsfield, which used PCBs marketed as Aroclors 1254 and 1260 in the manufacture of electrical transformers from the early 1930s to the late 1970s. During the 1970s, General Electric implemented extensive operational changes and rigorous control measures to prevent the escape of PCBs to the environment. In early 1977, GE discontinued the use of PCB in its manufacturing process.

The CASE report recommended greatly expanded monitoring and additional research on the actual effects on human health of eating PCB-contaminated

fish. In the spring of 1978, the Connecticut General Assembly appropriated \$200,000 to the Connecticut Department of Environmental Protection to facilitate a comprehensive investigation of the extent and significance of PCB contamination in the Housatonic. The DEP developed three interrelated study programs to determine contamination levels in fish and aquatic invertebrates, to determine sediment contamination and transport characteristics, and to determine effects on human health of consumption of contaminated fish (CB, Dec '81).

Two reports investigating PCB levels in fish and sediments in the Housatonic River have been completed. The State department of Health studied PCB levels in Housatonic River fish; the Department of Environmental Protection, the Connecticut Agricultural Experiment Station, and the United States Geological Survey combined efforts to study PCB concentration, distribution, and transport in the river.

Fish Study

In the fish study, almost 500 samples of fish taken from the river in 1980 were analyzed to measure their levels of PCBs. Fourteen different species of fish obtained from five locations along the Housatonic were tested. Species

included were: largemouth bass, smallmouth bass, brown bullhead, carp, white catfish, black crappie, American eel, white perch, yellow perch, pickerel, white sucker, sunfish, brown trout, and rainbow trout. The sample locations started upstream in the Sharon/Cornwall area and proceeded downstream to Bull's Bridge, Lake Lillinonah, Lake Zoar, and Lake Housatonic.

Various species of fish were caught at each location. For the most part, only ten fish of any given species were available for analysis from a specific location. In some fish, the PCB levels were determined twice: once with the skin present and once without skin. A total of 476 fish were sampled altogether, of which 92 had their skins. (Fish were measured both with and without skin because PCBs tend to accumulate in the fatty tissue under the skin surface).

The major analysis of the study compared mean PCB levels across locations for a given type of fish and across species of fish at a given location. For example, all of the smallmouth bass caught at all locations were compared to one another, as were all species of fish caught at Lake Zoar.

The Federal Food and Drug Administration health standard for PCBs in edible fish flesh

is 5.0 parts per million (ppm). Samples ranged well over and under this level. The highest readings, 38.38 ppm and 36.58 ppm, were recorded from a rainbow trout and a brown trout, respectively, taken in the Sharon/Cornwall area. (Both had skins on). A skinned white sucker taken at Lake Zoar had the lowest reading at 0.02 ppm.

PCB levels vary widely by location and species. The range shifts toward higher values in fish with their skins compared to those without except for black crappie, where the PCB values are low and no location-specific comparison is possible, and for pickerel, where there was only one fish with skin. In addition, for many species there is a strong pattern of higher values in the upstream locations compared to those taken downstream. The exceptions are eel (which had higher levels downstream) and yellow perch, black crappie, and sunfish, where the levels are usually low at all locations. Pickerel also had fairly low levels.

Almost all species measured with skin had some fish with PCB levels above the federal standard of 5.0 ppm, the exception being black crappie, pickerel, and sunfish; even without skin, all species except black crappie, pickerel, sunfish, and largemouth bass had some individuals which exceeded the standard. While the 5.0 ppm level is exceeded more often in the upstream locations of Sharon/Cornwall, Bulls Bridge, and Lake Lillinonah, downstream locations frequently exceeded that level for carp, white catfish, and American eel. Over all locations, 19.5 percent of the fish without skin and 65.2 percent of those with the skin had PCBs above the standard.

In general, where differences existed, the upstream locations had the higher mean PCBs. For largemouth bass, black crappie, and white suckers, Bulls Bridge had a significantly higher level of PCBs than the other locations, which did not differ among themselves. The PCBs in small-

mouth bass were the same at Bulls Bridge and Lake Housatonic and were the same among the three Housatonic lakes. Brown bullheads had significantly higher PCBs at Lake Lillinonah compared to other locations, which did not differ. White perch in Lake Lillinonah had a higher mean PCB level than those from the other two lakes, and those in Lake Housatonic had a much lower level than those from the other two lakes.

Different species which were caught in the same locations were compared to determine which had the highest and the lowest levels. At Bulls Bridge, for instance, white sucker, smallmouth bass and carp had significantly higher mean PCBs than did the other species measured without skin. For those with skin, smallmouth bass had greater levels than pickerel and sunfish.

For fish caught in Lake Lillinonah, white catfish were significantly higher in PCBs than other species. In Lake Zoar the highest mean levels were found in white catfish and American eel. Carp had the highest PCB levels of fish taken in Lake Housatonic.

The study concluded that fish from the Housatonic River do contain high levels of PCBs even when their skins have been removed. PCB levels are even higher when the skin was left intact. Levels are related to location and species of fish. Locations further upstream tend to have higher levels of PCB in the fish although some species show high levels in all locations. In the samples that were measured, only largemouth bass, black crappie, pickerel, and sunfish have levels below the standard of 5.0 ppm regardless of location. The results support the DEP/DOHS advisory that fishermen avoid eating fish caught in the Housatonic River from the Massachusetts state line to the Stevenson Dam at Lake Zoar.

Sediment Study

The study on the determination, distribution, and trans-

port of PCB contaminated sediments in the Housatonic River was undertaken in early 1980. The river and its tributaries have been used for industrial and domestic wastewater disposal in Connecticut, Massachusetts, and New York for many years. The Housatonic has also long been impounded for water supplies, water power, and, more recently, for hydroelectric power. There are 13 dams in Massachusetts, where the river drops 900 feet from its headwaters to the Connecticut State line. There are five more dams in Connecticut, where the river drops an additional 600 feet to its mouth.

Data from monitoring efforts since 1974 indicated that surficial sediments in the Connecticut section of the river were contaminated with PCBs. Analysis of sediment cores from these impoundments showed similar concentrations in deeper sediments, suggesting that contamination may have prevailed for several decades. Limited data from Massachusetts indicated that PCBs were present in sediments from upstream reaches of the river as well.

The specific objectives of the sediment study were to determine the mass of PCBs in the bottom sediments of the Housatonic and to determine the role of transport of suspended sediments and PCBs down the river. Some portions of the work were performed under a cooperative agreement between DEP and USGS, and some were performed by the Connecticut Agricultural Experiment Station (CAES).

PCBs were found to have accumulated in the Housatonic wherever fine-grained sediments had accumulated. The concentration of PCBs increased gradually with the increasing distance upstream and then increased sharply in Woods Pond, the first impoundment below Pittsfield, Massachusetts. The distribution of PCBs within impoundments was found to be controlled by the distribution of fine-grained sediment.

Ponds or streams in 30 towns reserved for fishermen under 16

By John Waters

In the halcyon days of Norman Rockwell magazine covers, it was an overalled barefoot boy with cheeks of tan, a can of worms, and a pole cut from a nearby tree who trudged hopefully to the ol' fishing hole at the far end of the pasture.

Today, the standard image of a juvenile Isaac Walton is probably a T-shirted city kid in levis with a discount-store fishing kit who angles hopefully in one of the 34 freshwater ponds and streams in Connecticut reserved for boys and girls who are 15 years old or younger. Thirty towns and cities provide such areas. Posters warn that they are off limits for fishing by anybody older.

The 30 community-owned ponds are not stocked with fish from State hatcheries; but Pasture Pond in Plainfield is stocked with trout because it is on the land of the State's Quinebaug Valley Fish Hatchery. In the other ponds, the fish are generally warm-water species such as bass, sunfish, and perch. Communities may stock ponds if they care to.

Fishing Seasons

All but two of the ponds may be fished whenever they are

free of ice, except from April 1 through 6 a.m. on April 17. The two with different times are Butternut Pond in East Windsor, which is open from 6 a.m. on April 17 through October 31; and Pasture Pond in Plainfield, which is open from 6 a.m. on April 17 through September 30.

The streams may be fished from 6 a.m. on April 16 through November 30.

Laws and Regulations

Although no licenses are required, juveniles must obey all the laws and regulations that licensed fishermen have to obey, such as those dealing with the minimum lengths of fish, the daily catch limits, closed seasons, types of bait, and methods of fishing. This information is printed in a free annual "Abstract of Hunting, Trapping and Sport Fishing Laws and Regulations," available from town clerks as well as at DEP's Hartford and district offices.

Angling, which is the only permitted method of fishing in these ponds and streams, is defined as follows: "Angling means fishing with a hook and line which must be personally attended. Not more than two

lines, with or without rods, may be used at one time. Each line may have any combination of baited hooks, flies, or lures, among which only three hooks may be baited."

Youngsters do not have to pay for fishing at the places listed here. Refer to this list to find the most convenient pond or stream in your area.

Kids' Fishing Derbies

The State does not sponsor juvenile fishing derbies. Sponsors who want to conduct a derby before or after the legal fishing season must apply in writing for permission from the Department of Environmental Protection. Mail applications to:

Dennis DeCarli
Deputy Commissioner
Division of Conservation
and Preservation
DEP Room 243
165 Capitol Avenue
Hartford, CT 06106

Such an application is not required if the derby is to be held at one of the ponds during the legal fishing season, which is from 6 a.m. on April 17, 1983, through March 31, 1984 (February 29, 1984 at Pasture Pond, Plainfield).



Steven Grudzinski of Hartford caught the biggest fish at a fishing derby for youngsters at Goodwin Park Pond sponsored by Hartford's Department of Parks and Recreation.

Locations of ponds and streams for children

Ponds

HARTFORD-LITCHFIELD AREA

BRISTOL: Page Park Pond.

NEW BRITAIN: Stanley Quarter Pond.

NEWINGTON: Mill Pond.

SALISBURY: Factory Pond.

TORRINGTON: Clark (Besse) Pond.

WEST HARTFORD: Beachland Pond.
Fernridge Park Pond.
McGovern Pond.

WETHERSFIELD: Mill Woods Park Pond.

WINDSOR: Stroh Pond.
Washington Park Pond.

WINDSOR LOCKS: Upper Basin Pond.

FAIRFIELD-NEW HAVEN AREA

ANSONIA: Abe Stone Park
(Colony Park) Pond.

EASTON: Helen Keller School Pond.

FAIRFIELD: Gould Manor Pond.

MERIDEN: Mirror Lake (Hubbard Park) Pond.

MILFORD: City Hall Pond.
North Street Pond.

NEW HAVEN: Edgewood Park Pond.

SEYMOUR: Sochrin Pond.

TRUMBULL: Katz Pond.

WATERBURY: Lower Fulton Park Pond.

TOLLAND-MIDDLESEX AREA

EAST WINDSOR: Butternut Pond.

ENFIELD: Freshwater Pond.

GLASTONBURY: Pasture Pond.

MANCHESTER: Center Springs Pond.

MIDDLETOWN: Chestnut Hollow Park Pond.

STAFFORD: Hyde Park Pond.

WINDHAM-NEW LONDON AREA

PLAINFIELD: Pasture Pond
(Quinebaug Valley Fish Hatchery).

PUTNAM: Hurlburt Pond.

THOMPSON: Lilly Pond.

Streams

ORANGE: Wepawaug River from old New Haven-Derby railroad upstream about two miles.

PUTNAM: Quinebaug River within town park as indicated by posters.

SHELTON: Indian Hole Brook from falls in Indian Wells State Park downstream to railroad bridge.

Order your seedlings soon!

Again this year, Connecticut landowners will have the opportunity to purchase tree and shrub seedlings for reforestation, wildlife habitat improvement, Christmas tree plantings, erosion control or other conservation purposes, according to Robert L. Garrepy, State Forester.

"To guarantee availability, however, orders should be placed as soon as possible," Garrepy said, "since many species sell out very quickly."

Seedlings are offered under three programs: the Buffer Bunch, Wildlife and Conservation Packet, and Forest Planting Stock.

The Buffer Bunch packet consists of 20 tree seedlings (10 hemlock and 10 Norway spruce) and 30 shrub seedlings (usually 15 silky dogwood and 15 autumn olive). The evergreens provide cover for birds and small animals, and the shrubs provide seeds or berries for food. There is no minimum acreage requirement. The packet is shipped directly to the landowner by United Parcel Service in late March or early April and its cost is \$13.00, including shipping.

The Wildlife and Conservation Seedling Packet contains 75 tree seedlings (50 hemlock and 25 Norway spruce) and 75 shrub seedlings (25 autumn olive, 25 crabapple, and 25 silky dogwood). The price is \$25.00, including United Parcel Service delivery. At least one-quarter acre of plantable land is needed to qualify for the 150 seedlings provided



Seedlings purchased under the Forest Planting Stock program are shipped to 10 delivery points in the State in April or May.

under this program. Packets are shipped in March, April, or early May.

The Forest Planting Stock offer is available to Connecticut landowners with larger planting areas, who intend to establish a forest plantation or a commercial Christmas tree planting or who wish to augment existing forest stands on one or more acres (not including house lot). In some cases, federal cost-sharing may be

available to offset planting expenses.

Forest Planting Stock orders for conifer species must be in multiples of 250, and the price is \$54.00 per 1,000 trees. These seedlings will be shipped to one of 10 delivery points in the State in April or May, and the landowner will be notified by postcard when the order may be picked up.

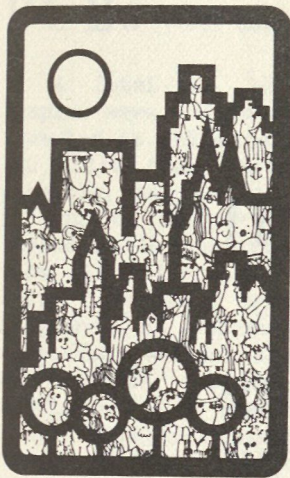
"While most people consider fields and other open spaces as logical planting sites," Garrepy said, "it is estimated that nearly 100,000 acres of existing forest land in the State would benefit from underplanting of various species of conifers. Areas recently logged or locations where gypsy moth defoliation has led to hardwood mortality are excellent for conifer plantings."

Orders for Wildlife and Conservation Packets and Forest Planting Stock require the approval of a wildlife biologist, district conservationist, or service forester.

Two restrictions are placed on all orders: seedlings may neither be resold with roots attached nor used for ornamental planting.

The seedlings are quite small when received (from eight to 15 inches in height). They grow slowly for the first year or two and then more rapid growth and development can be expected.

To order, landowners should write or call the State Forest-



By Leslie Bieber,
Citizens' Participation Coordinator

For Your Information

Optional items:

- * flashlight
- * your own tent
- * camplight
- * dining fly
- * air mattress
- * cooking equipment
- * insect repellent
- * utensils

If you are interested in finding out more about this program, contact the DEP Information and Education Unit, 566-8108. ■

Autumn Happenings

Convocation

Several activities of interest to the general public are being planned for the early part of the fall. On September 10 the Land Trust Service Bureau will hold a Convocation for Connecticut land trusts. The all-day workshop will include sessions on the natural resources inventory process, good forest management, and maintaining a parcel of land, among other topics. The meeting will be at the Yale Inn in Meriden. Contact Suzi Wilkins at the Land Trust Service Bureau in Middletown, 344-9867, for information or registration. ■

Camping

Those of you who enjoy outdoor family activities might like to take part in the Family Camping Experience at Goodwin State Forest on the weekend of September 24 and 25. The last such program, held in July, was hailed as a rousing success by both DEP staff members and the camping families. Programs such as nature walks, bird watching, developing basic camping skills, and living history demonstrations are being planned. Cost for the weekend

is \$10 per person, which includes meals.

If you plan to attend, here is a list of suggested equipment:

- * sleeping bags
- * soap, towels, toothbrush, etc.
- * water container
- * camera
- * blanket
- * note paper and pencils
- * boots
- * clock
- * rain gear
- * a variety of clothes
- * pillow

HVA Day

On October 9 the Housatonic Valley Association (HVA) is sponsoring an environmental fair known as "HVA Day." The Association, which is dedicated to preserving and protecting the natural environment in the Housatonic River Valley, has invited many of the State's environmental organizations to set up booths or exhibits of interest to the public. Several major environmental speakers, including Alan Hill, Chairman of the President's Council on Environmental Quality, and David Brower of Friends of the Earth will be on hand; there will be musicians

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Raymond Furbush

Last DEP Family Camping Program, in July, was considered a rousing success by participants and staff.

Where and when

One more thing you wanted to know about Connecticut's auto emissions inspections...

One more thing you wanted to know about Connecticut's auto emissions inspections . . .

Below is a list of CTVIP's 18 auto emissions inspection stations. Stations are open Tuesdays and Thursdays from 8 a.m. to 7:30 p.m. (except Bloomfield, open 8:30-4 and 5:30-7; and Darien and Norwalk, open 8:30-7:30). Stations are open Wednesdays and Fridays from 8 a.m. to 4:30 p.m. (except Bloomfield, 8:30-4; Darien and Norwalk, 8:30-5:30). On Saturdays, stations are open from 8 a.m. to 1 p.m. (except Darien and Norwalk, 8:30-1). The Danbury station is open on Mondays (8 a.m. to 4:30 p.m.) as are Darien and Norwalk (8:30 a.m. to 5:30 p.m.).

BLOOMFIELD (2 lanes)
110 Granby Street
Telephone: 243-0148

BROOKLYN (1 lane)
208 South Main Street
Telephone: 779-0168

DANBURY (2 lanes)
14 Plumtrees Road
Telephone: 743-1378

DARIEN (temporary)
I-95 Rest Area
(Following Exit 10, New York bound)

EAST HARTFORD (3 lanes)
160 Tolland Street
Telephone: 528-5478

EAST WINDSOR (2 lanes)
14 North Road
Telephone: 623-8009

FARMINGTON (3 lanes)
1536 New Britain Avenue
Telephone: 674-1588

GROTON (2 lanes)
479 Gold Star Highway (Rte.184)
Telephone: 449-0672

MIDDLETOWN (2 lanes)
Route 17
Telephone: 347-8371

NEWINGTON (3 lanes)
261 Pascone Place
Telephone: 667-3812

NORTH HAVEN (5 lanes)
25 Stillman Road
Telephone: 234-0316

NORWALK (2 lanes)
Willard Road
Telephone: 847-4753

NORWICH/TAFTVILLE (2 lanes)
520 Norwich Avenue
Telephone: 887-0069

OLD SAYBROOK (1 lane)
5 Custom Park Drive
Telephone: 399-9997

STRATFORD (5 lanes)
885 Woodend Road
Telephone: 378-9697

WATERBURY (3 lanes)
2038 Thomaston Avenue
Telephone: 755-5312

WILLINGTON (1 lane)
Route 32, Box 110
Telephone: 487-0565

WINCHESTER (2 lanes)
Winsted/Torrington Road
Telephone: 379-2568 ■

PCBs

From page 15

A total of 281 sediment samples were collected from the riverbed at 148 sites extending 130 miles from Dalton, Massachusetts, to the Stevenson Dam in Monroe, Connecticut. This included 114 samples collected from 54 sites in Massachusetts. Sediment transport was monitored by collecting daily suspended sediment samples over an 18-month period at Great Barrington, Massachusetts; Falls Village, Connecticut; and New Milford, Connecticut. Hourly suspended sediment samples were collected at these sites during selected storm events.

Samples taken above Pittsfield, in the Ten Mile River in Connecticut, and in several Connecticut lakes contained very low background concentrations of 0-0.1 ppm. Six samples from the Still River, a tributary of the Housatonic in Connecticut, contained an average of .025 ppm Aroclor 1248, a type of PCB not manufactured or used by General Electric. The ratio of Aroclor 1248 to 1260 was higher in samples from lakes Zoar and Lillinonah than in those collected upstream, suggesting that some PCB entered these lakes from the Still River. Uneven transport of Aroclor 1248 downstream may also have occurred.

Calculations of the mass of PCBs in the sediments in the river show that, of the estimated total of 22,200 lbs, about 60 percent is in Massachusetts; and that nearly all of this amount is in sediments in Woods Pond. The remaining 40 percent is in sediments in Connecticut; about 29 percent is in Lake Lillinonah and 10 percent is in Lake Zoar, with small amounts at other locations. Transport of PCBs by suspended sediment is estimated at the rate of 250-500 pounds per year, \pm 50 percent.

It appears that the principal source of PCBs in the Connecticut section of the Housatonic is the sediment in Woods Pond, Massachusetts. Since the

General Electric plant in Pittsfield was the only known source (to date) of PCBs, it seems to be the likely source of Aroclors 1254 and 1260 in the river. The source of Aroclor 1248 is not known. The results of the study suggest that removal, containment, or detoxification of sediments in Woods Pond would help to alleviate further transport of PCBs into Connecticut.

More detailed information is available on both the fish and the sediment studies. For a complete breakdown on the fish study, contact Alan Siniscalchi at the Connecticut Department of Health, 79 Elm St. If you are interested in specifics of the sediment study, contact Charles Fredette, Water Compliance Unit, DEP, State Office Bldg., Hartford 06106, 566-2588. ■

Seedlings

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er's Office or one of the DEP field offices listed below, indicating the program of interest. An order form will be sent.

State Forester's Office,
State Office Building, 165
Capitol Avenue, Hartford, CT
06106; telephone 566-5348.

DEP Western District,
Harwinton Headquarters,
Plymouth Road, RFD #4,
Harwinton, CT 06791; telephone
485-7085.

Newtown Headquarters, Department of Environmental Protection, Bureau of Forestry, Fairfield Hills Hospital, Newtown, CT 06470; telephone 426-1690.

DEP Eastern District,
Marlborough Headquarters, 209
Hebron Road, Marlborough, CT
06447, telephone 295-9523.

State Tree Nursery, RFD #1, Box 23A, Voluntown, CT 06384; telephone 376-2513. ■

To do

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and other entertainment as well. The affair will take

place at the Mohawk Mountain Ski Area in Cornwall, which should be ablaze with autumn foliage in early October. A small admission fee will be charged. Call Connie Rafle at HVA, 927-4649, for more details. ■

Conference

There will be a Hazardous Waste Source Reduction Conference and Exhibition on October 13 at the Sheraton Boxborough Inn in Boxborough, Massachusetts (35 miles west of Boston at Routes 495 and 111). It's sponsored by the Massachusetts Executive Offices of Environmental and Economic Affairs.

Hazardous waste source reduction technologies will be featured. Persons interested in exhibiting, delivering papers, or attending the conference should contact Teresa J. Walsh, Rm. 1905, Bureau of Solid Waste Disposal, 100 Cambridge Street, Boston, MA 02202; (617) 727-3262. ■

Trees: care and feeding

Are the trees on your land suffering from malnutrition, thirst, sunscald, fungal infections, insect attacks, and other problems? "The Care & Feeding of Trees" may help. This new, updated, illustrated edition of the book by Richard C. Murphy & William E. Meyer offers the layman information on "Planting and transplanting, diagnosis and treatment of disease, fertilizing, pruning, shaping, and methods of fighting the gypsy moth, plus much more." ■

The 160-page book, published in April 1983 by Crown Publishers Inc. (One Park Avenue, New York, NY 10016), is \$5.95 in paperback. ■

Hunters and fishermen share sports and outdoor traditions

Remember the excitement of catching your first fish? Hitting the bullseye or breaking a clay target for the first time? Your first sunrise in a duck blind? These are memories sportsmen treasure.

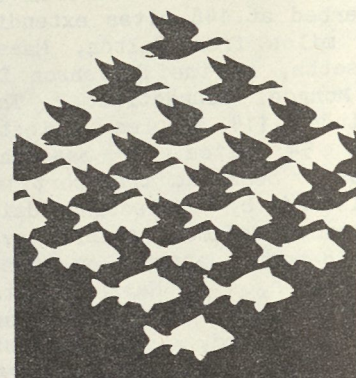
This year's theme for National Hunting and Fishing Day, "A Day for a Lifetime," highlights the fact that the only thing that separates many people from having this same excitement is that they have never been exposed to it.

National Hunting and Fishing Day attempts to open up

enjoyment of the outdoors to non-sportsmen and also tries to ensure a healthy future for hunting, fishing, and the outdoors. Through exhibits and displays at NHF Day programs, non-sportsmen can learn about the need to conserve natural and wildlife resources and how hunters and fishermen contribute to America's conservation efforts.

National Hunting and Fishing Day has earned the support of more than 40 of the nation's leading conservation organizations including The Izaak Walton League and the National Wildlife Federation. Each year, more than 2,000 separate National Hunting and Fishing Day activities are attended by more than 10,000,000 people.

For information on National Hunting and Fishing Day activities scheduled in Connecticut, contact Frank Disbrow, DEP Hunting Safety Coordinator, at 642-7239 (Franklin). ■



Sept. 24, 1983

**NATIONAL
HUNTING
& FISHING
DAY®**

DEP Citizens' Bulletin

State of Connecticut
Department of Environmental Protection
State Office Building
Hartford, Connecticut 06106

SECOND CLASS POSTAGE PAID
AT HARTFORD, CONNECTICUT